

WS

$$\textcircled{1} y = (x^3 + 2x)^{37} = u^{37} \quad u'$$

$$u = x^3 + 2x$$

$$u' = 3x^2 + 2$$

$$y' = (37u^{36}) (u')$$

$$= 37(x^3 + 2x)^{36} (3x^2 + 2)$$

$$\textcircled{2} \quad y = 4(3x^2 - 2x + 1)^{-3}$$

$$y' = -12(3x^2 - 2x + 1)^{-4}(6x - 2)$$

$$= \frac{-12(6x - 2)}{(3x^2 - 2x + 1)^4}$$

$$\textcircled{5} \quad y = (x^2 + 2x)^4 (\sin(x))^2$$

$$y' = 4(x^2 + 2x)^3 (2x + 2) (\sin^2 x) + 2(x^2 + 2x)^4 \sin x \cdot \cos x$$